

# Preterm Delivery in Rhode Island, 2002-2006

## Preterm delivery in RI

- Preterm delivery (PTD), or delivery which occurs earlier than 37 weeks of gestation, is a leading cause of illness and death among newborns in the United States.
- Based on data from the Rhode Island PRAMS survey, an estimated 9.4% of RI moms had babies that were born preterm between 2002-2006.
- Mothers with a history of prior PTD had the highest prevalence of PTD for the current pregnancy (23.2%).
- Major risk factors for preterm birth included hypertension, diabetes, race/ethnicity and mother's age.
- PTD was not significantly related to smoking or binge-drinking during pregnancy. However, these may cause dangerous outcomes like fetal alcohol syndrome and low birth weight.



PRAMS

### The rate of PTD was also highest among:

- ✓ African American mothers (13.1%)
- ✓ Deliveries paid for by public insurance programs such as Rite Care (10.3%)
- ✓ Mothers under age 20 and aged 30 and older (10.3%)
- ✓ Unmarried mothers (10.8%)

**WHAT IS PRAMS?** PRAMS, the Pregnancy Risk Assessment Monitoring System, is a surveillance project of the Centers for Disease Control and Prevention (CDC) and state health departments. PRAMS collects state-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. In Rhode Island, all mothers who deliver a low birth weight baby [<2500 grams] are sampled.

[www.health.ri.gov/family/prams/](http://www.health.ri.gov/family/prams/)

## Preterm delivery rates by maternal characteristics, RI Births, 2002-2006

	n= (in PRAMS sample)	Preterm Birth (%)	p-value
<b>Prior Preterm Delivery</b>			<.0001
No	6045	8.4	
Yes	591	23.2	
<b>Race/Ethnicity</b>			0.019
White, NH*	4380	8.8	
Black, NH*	578	13.1	
Hispanic	1317	9.9	
Other	361	9.2	
<b>Delivery Paid by Government</b>			0.019
No	3831	8.7	
Yes	2805	10.3	
<b>Maternal Age</b>			0.011
<20	630	10.3	
20-29	2914	8.3	
30+	3092	10.3	
<b>Maternal Education</b>			0.194
Less than HS	992	10.1	
High School	1820	9.9	
Greater than HS	3652	8.8	
<b>Marital Status</b>			0.002
Married	4189	8.5	
Unmarried	2447	10.8	
<b>Smoking during pregnancy</b>			0.679
No	5667	9.3	
Yes	969	9.9	
<b>Previous Live Birth</b>			0.035
No	3278	10.1	
Yes	3358	8.8	
<b>Diabetes</b>			0.001
No	5975	8.9	
Yes	661	13.8	
<b>Hypertension</b>			<.0001
No	5401	8.1	
Yes	1235	17.0	
<b>Pre-pregnancy BMI</b>			0.083
Underweight	579	9.7	
Normal	3587	9.4	
Overweight	1407	8.1	
Obese	1063	10.6	

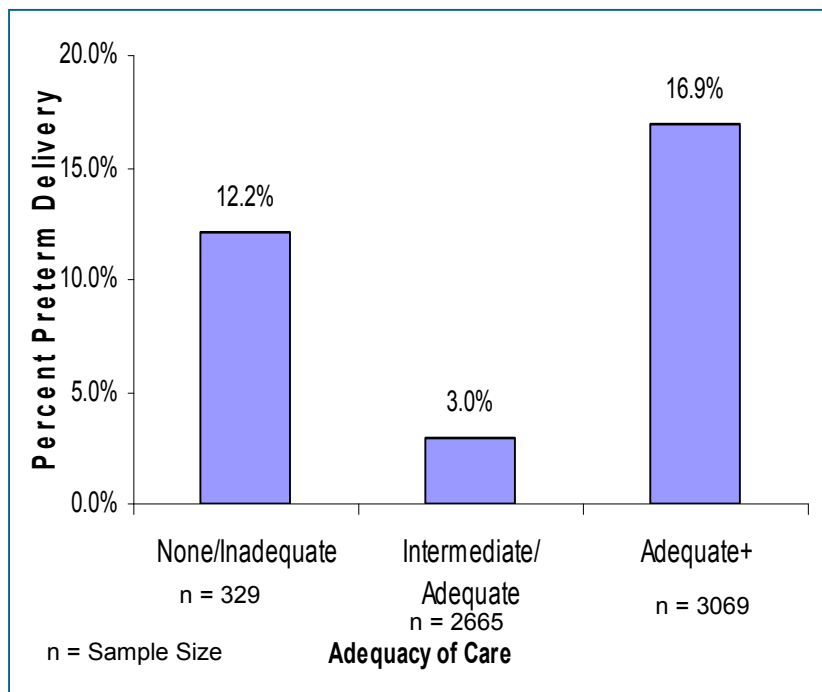
\*NH=Non-Hispanic

## Preterm delivery and prenatal care

The adequacy of prenatal care\* that mothers received was also associated with preterm delivery (PTD).

- Mothers who received “none or inadequate” care were 4 times more likely to have PTD (12.2%) compared with mothers who got “intermediate or adequate” care (3.0%).
- Those who received “adequate+” care, which includes women who had higher risk pregnancies, also had increased PTD (16.9%).

### Preterm Delivery Rates by Adequacy of Prenatal Care RI Births, 2002-2006



**In Rhode Island a statewide Prematurity Task Force was established in 2006, to identify strategies to reduce rates of PTD and improve birth outcomes. The Task Force has developed a set of recommendations [[www.health.ri.gov](http://www.health.ri.gov)] and is currently working on the implementation of strategies.**

#### Study Strengths

- Relatively large sample size
- Total sampling of LBW population

#### Study Limitations

- While PRAMS is weighted to reflect the population of RI as a whole, the survey response rate of 71% may contribute some bias to findings.
- PRAMS is a self-report survey and some mothers may recall experiences more or less accurately than others.
- PRAMS is only available in English and Spanish in RI, and may not be accessible to all mothers.

**\*Adequacy of prenatal care was measured using the Kotelchuck Index.** This index combines information about the timing of entry into prenatal care and the number of visits to determine whether the care a mother received was adequate given the length of the pregnancy.

